Areas of Critical Environmental Concern

Requirements for ACEC Designation

To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) **and** require special management to protect and prevent irreparable damage to relevant and important resource values. Specific evaluation questions for each of these three elements are listed below.

Name of Proposed ACEC: Kaibab-Paunsaugunt Wildlife ACEC

Location of Proposed ACEC: NW corner of Coconino County, Arizona
(Attach Map)

1. Relevance Criteria: Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The proposed ACEC meets the relevance criteria based on numerous fish, wildlife, and plant resources including Siler pincushion cactus, Kaibab pincushion cactus, crucial mule deer winter range, mountain lion, pronghorn antelope, California condor, golden eagles, northern harrier, rough-legged hawks, ferruginous hawks, burrowing owls, and others. In addition, the area serves as a vitally important migration travel corridor between the Kaibab Plateau in Arizona and the Paunsaugunt Plateau in southern Utah.

2. Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: ____

The area of the proposed ACEC meets the importance criteria based on these resources: a reintroduced population of endangered California condor; the presence of the threatened species, Siler pincushion cactus, and the rare species, Kaibab pincushion cactus; and a mule deer travel corridor. Other wildlife species present do not meet the criteria as they status does not exceed the level of local significance, nor are they considered fragile, sensitive, rare, irreplaceable, exemplary, unique, or vulnerable to adverse change.

California condor (Gymnogyps californianus): California condors (Gymnogyps californianus) are the largest flying land bird in North America. They weigh up to 25 pounds and have wingspans of 9 1/2 feet (Arizona Game and Fish Department 2004). The species once ranged along the entire Pacific Coast from British Columbia to Baja California. California condors have been considered to be a declining species since the 1890s. In the winter of 1984-85, the wild population was reduced from 15 to 9 birds. By 1986, biologists decided to capture all remaining wild California condors and bring them into a captive breeding program. The California condor was first listed on March 11, 1967. It is currently designated as Endangered in the U.S.A. only, except where listed as an experimental population On October 16, 1996, the California condor was designated as Experimental Population, Non-Essential in the U.S.A. (specific portions of Arizona, Nevada, and Utah). In 1996, the USFWS, the Peregrine Fund, BLM, and other partners reintroduced California condors to the Vermilion Cliffs. The population was designated as experimental non-essential, indicating that this population is not essential to the survival and recovery of the species. This population has been extremely successful. As of 2005, the population had reached nearly 60 wild birds (Arizona Game and Fish Department 2004). Several nesting attempts have been recorded, and one chick successfully fledged. Despite the experimental non-essential designation, this population represents nearly one forth of the total world population of this species.

Siler pincushion cactus (*Pediocactus sileri*): This species' distribution is limited to southwestern Utah and northwestern Arizona, where it is ecologically restricted to a specific gypsum and salt-rich soil (TNC 1998a). *P. sileri* occurs within three broad vegetation communities in soils derived from the Moenkopi Formation, high in gypsum and soluble salts (TNC 1998a). BLM has documented the plants on 17,000 ha of land (Hughes 1990). The species is distributed at numerous isolated locations over a relatively large area, though at most sites the extent of the contiguous habitat is small. In most cases individual plants are widely separated, but the survey did find several dense populations with at least 2700 plants each. *P. sileri* was listed as endangered under the Endangered Species Act on November 26, 1979 (FWS 1979). It was downlisted to threatened status in 1993 (FWS 1993). The extent to which collection has depleted populations of the Siler pincushion cactus is unknown. The species is in a static trend, with highly productive years corresponding to adequate rainfall and years of low reproductive success corresponding to drought. Several Areas of Critical Environmental Concern have been established on the Arizona Strip for this species.

Kaibab pincushion cactus (*Pediocactus paradinei*): A northern Arizona endemic known only from the eastern slopes of the Kaibab Plateau and adjoining areas, Kaibab pincushion cactus is restricted to limestone soils in transitional areas between woodland and sagebrush communities in Coconino County, Arizona. The entire distribution of this species is within an area of approximately 15 miles north-to-south and 2-3 miles east-to-west, primarily on lands administered by the US Forest Service. In 2004, a small remnant population of this species was rediscovered on BLM lands in Coyote Valley within the area of the proposed ACEC.A former

candidate for protection under the Endangered Species Act, *P. paradinei* was removed from candidate status due to lack of threats as published in the Federal Register on April 2, 1998. In October of 1996, the U.S. Forest Service and the Bureau of Land Management developed a Conservation Assessment and Strategy for management of this species.

Mule deer (Odocoileus hemionus): The Buckskin Mountains provides important habitat for mule deer during winter and during spring and fall migrations. This area is used by two highly prized deer herds: the Pausaugunt (to the north) and the Kaibab (to the south) mule deer herds. Mule deer that summer on the Paunsaugunt Plateau in southern Utah are referred to as the Paunsaugunt herd. Most of the Paunsaugunt deer migrate south or southeast in the fall to the area between Kanab Creek and the Paria Rive. Southern migration movements are limited by topography to breaks. Carrel et al. (1999) estimated that approximately 20-30% of the Paunsaugunt herd crosses US 89 and found that 12.9% of deer mortality was due to deer-vehicle collision. Mule deer that live on the Kaibab Plateau and surrounding areas are collectively referred to as the Kaibab deer herd. A majority of the Kaibab herd winter on the eastern and western portions of the Kaibab Plateau, however a small portion utilize habitat within the Buckskin Mountains. The Kaibab herd is well known among hunters for having deer with large antler sizes, and is infamous in wildlife management for its history of population oscillations. The combined effects of management activities and livestock grazing are cited as the major causes of deer population eruptions in the 1920's. Browse use by the large deer herd soon exceeded annual growth, and severely impacted range conditions. Several droughts and severe winters then led to major die-offs of deer in 1924 and 1955. Fire suppression, which may have accelerated loss of available browse, has also been indicated as a contributing factor. Reversals in hunting and predator control policies have allowed deer populations to recover to levels which fluctuate within relatively stable limits. However, forage conditions continue to be problematic and after several years of severe drought the herd is again in danger of a die-off.

Woodland provide important migratory and winter range for mule deer. Habitat used during migration consists of higher elevation ecotonal areas where Gambel's oak and ponderosa pine intermingle with pinyon and juniper. Winter range typically includes sagebrush-grasslands, juniper savannas, and pinyon-juniper woodlands with a large shrub component. Food appears to be the limiting factor for mule deer populations on both migratory and winter ranges. During fall migration acorns and green basal foliage of perennial grasses provide nutritious forage. In winter, cliffrose and sagebrush are particularly important as browse, and cool season grasses provide an additional food source.

3. Need for Special Management: Does the value, resource, system, process, or hazard require special management to protect (or appropriately manage) the important/relevant value(s)? Special management is defined as or is needed when:

- Current management activities are not sufficient to protect a given relevant/important resource value and a change in management is needed that is not consistent with the existing land use plan(s).

- The needed management action is considered unusual or outside the normal range of management practices typically used.

- The change in management is difficult to implement without ACEC designation.

Describe the special management required for the value(s) listed above:_____

California condor: California condor are protected under the Endangered Species Act. Conservation measures for the species are outlined in the Recovery Plan for California Condors, as well as the draft Arizona Strip Resource Management Plan (RMP). The Peregrine Fund and the Arizona Game and Fish Department (AGFD) have active management programs in place for the protection of California condors. The Proclamation designating the Vermilion Cliffs National Monument also provides supplemental protection for the species. Threats to the species include illegal collection of condors and their eggs, poisoning from ingestion of lead fragments from bullets embedded in animal carcasses the condors feed on, and collisions with structures such as power lines (AGFD 2004). Given that the Peregrine Fund and AGFD personnel are on-site monitoring these birds, the vast majority of threats from collection are being addressed under current management. In addition, Arizona Game and Fish Department are actively involved in public education efforts to promote the use of non-lead ammunition to reduce the risk of lead ingestion. Both the current (BLM 1992) and draft Arizona Strip RMPs allow the BLM the authority identify and reduce or eliminate threats to any wildlife species regardless of listing status. This includes the authority to modify design standards on new proposed powerlines and recommend modifications to existing lines.

Siler pincushion cactus: Siler pincushion cactus are protected under the Endangered Species Act. Conservation measures for the species are outlined in the Siler Pincushion Cactus Recovery Plan, as well as the draft Arizona Strip Resource Management Plan (RMP). Potential threats include off-road vehicle traffic, and trampling by livestock, especially in wet soils. BLM monitoring plots have shown that the greatest mortality of plants is due to predation by rodents, lagomorphs, and insects (Arizona Game and Fish Department 1997, Hughes 1990). Raptors poles have been installed in several areas of Siler cactus habitat to discourage rodents and rabbits. Grazing impacts have been and continue to be addressed under the existing Arizona Strip RMP (BLM 1992) and allotment management plans. Specifically, areas where livestock are concentrated in the vicinity of cactus populations, such as corrals and water developments, have been identified and mitigation is being implemented. While off-road vehicle use is currently limited to existing roads and trails, closing areas to use by these vehicles may provide an additional measure of protection. For this reason, the Johnson Spring ACEC, as well as four other populations of Siler pincushion cactus were designated as ACECs in the 1992 RMP. The draft RMP would continue these designations with some boundary modifications to increase protection.

Kaibab pincushion cactus: Threats to the species include damage by off-road vehicle use, predation by rodents and/or lagomorphs (AGFD 1998) and commercial collection (Mathew 1994). Implementation of the Conservation Agreement and Strategy for this species has resulted in restrictions on off-road vehicle use and other recreational activities; road construction impacts being addressed in project proposals; fuelwood harvesting being restricted or prohibited; livestock grazing being eliminated in certain areas; vegetation manipulation of pinyon-juniper woodland being addressed through better management coordination and research; and ongoing research to address management needs on an ecosystem level (FWS 1998).

Mule deer: Mule deer may further benefit from management activities in woodland areas. Activities aimed at facilitating growth of Gambel's oak in woodlands could improve the quality

of migratory range. Those designed to reduce tree densities, create small openings in dense stands, or control tree expansion into adjacent sagebrush-grasslands could provide additional winter foraging opportunities. Seasonal limitations on wood cutting activities would reduce vehicle use and disturbance to mule deer during critical winter periods. The addition of new waters and maintenance of existing water developments along migratory routes and in dry areas would further enhance mule deer habitat. Initiation of restoration vegetation treatments, changes or limitations on wood cutting activities, and water construction and maintenance, are all actions currently allowable under the existing RMP (BLM 1992) and the draft RMP.

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4. Attach map (even if it is only a topographic map with ACEC boundaries drawn on it.)

See attached map and proposal submitted by Arizona Wilderness Coalition.

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5. Findings (for each described resource, indicate whether relevance and importance criteria were met, and what special management would be required to protect and prevent irreparable damage to these resources.).

A variety of resources met the relevance criteria. However, only four resources met the importance criteria based on the definitions provided. California condor, Siler pincushion cactus, and Kaibab pincushion cactus are each special status species and, by definition, are rare, fragile, and sensitive resources of more than local significance. Each is considered vulnerable to adverse change. Mule deer winter range and the presence of a migratory corridor could be considered a sensitive resource with more than local significance.

Resource	Relevance Criteria Met	Importance Criteria Met	Special Management Required
California condor	**Yes**	**Yes**	**None required, current management adequate**
Siler pincushion cactus	**Yes**	**Yes**	**Enhanced restrictions on OHV use in specific areas.**
Kaibab pincushion cactus	**Yes**	**Yes**	**Enhanced restrictions on OHV use in specific areas.**
Mule deer winter range	**Yes**	**Yes**	**None required, current management adequate**

Current management, as provided for by recovery plans, conservation agreements, RMPs, and agency policies generally provide a more than adequate framework for managing these sensitive resources. However, additional restrictions on off-road vehicle use would enhance conditions for both plant species, as well as reducing disturbance in mule deer habitat. Vehicle use is currently limited to existing roads and trails. Any motorized or mechanized vehicle use off of existing routes is not authorized. Route identification and designation is anticipated within two years following completion of the final RMP for the Arizona Strip Field Office. With the exception of Highway 89, no specific routes within the proposed ACEC have been identified as impacting sensitive resources or contributing to their decline.

For these reasons, no special management would be required for California condor or mule deer, other than that which is currently allowable under the existing RMP. Additional OHV actions

could benefit special status plants, though no specific problems have been identified through the habitat of these species. While mule deer would also benefit from increased restrictions on use of off-road vehicles, the largest known source of mule deer mortality in this population is due to Highway 89. ACEC designation would do little or nothing to reduce this mortality.

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6. Recommendations (Based on meeting the relevance and importance criteria and the need for special management, provide recommendations about designation of the proposed ACEC and areas that should be included.)

Based on the findings presented above, California condor and mule deer met the relevance and importance criteria, but no special management would be required above what is currently within the BLM's authority. Siler and Kaibab pincushion cactus met both the relevance and importance criteria and would benefit from site-specific OHV restrictions that would be enhanced if done in conjunction with ACEC designation. Specific problem areas have been and continue to be addressed within Siler pincushion cactus habitat. No specific areas have yet been identified on BLM lands within Kaibab pincushion cactus habitat. Therefore, recommendations are as follows:

1) Carry forward the proposed Kaibab-Paunsaugunt Wildlife ACEC as two smaller ACECs: the Johnson Spring ACEC for Siler pincushion cactus, and the Buckskin ACEC for Kaibab pincushion cactus. All remaining habitat within the original proposal does not meet the requirement for special management and would not contribute to the protection of either of the two plant species described above.

2) Carry forward the Johnson Spring ACEC designation forward from the 1992 RMP, with boundary modifications (2,058) in the draft Arizona Strip Field Office RMP. Initiate route inventory and designation as soon as possible with focus on reducing or eliminating vehicle use within Siler pincushion cactus habitat.

3) Propose the Buckskin ACEC (160 acres) for the protection of Kaibab pincushion cactus in the draft Arizona Strip Field Office RMP. Initiate route inventory and designation as soon as possible with focus on reducing or eliminating vehicle use within Kaibab pincushion cactus habitat.

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Fish and Wildlife Service. 1993. Reclassification of the Plant *Pediocactus sileri* (Siler Pincushion Cactus) from Endangered to Threatened Status. *Federal Register* 58(246): 68476-68480.

Fish and Wildlife Service. 1998. Endangered and Threatened Wildlife and Plants; Notice of Reclassification of Four Candidate Taxa: *Pediocactus paradinei* (Kaibab Plains Cactus), *Castilleja elongata* (Tall Paintbrush), *Dalea tentaculoides* (Gentry's Indigobush), and *Astragalus Oophorus* var. *clokeyanus* (Clokey's Eggvetch). *Federal Register*. 63(63):16217-16218.

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Mathew, B., ed. 1994. CITES Guide to Plants in Trade. CITES Department of Environment.

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The Nature Conservancy. 1998b. Park Pincushion-Cactus (*Pediocactus paradinei*). Natural Heritage Central Databases (NHCD) information provided via the Biodiversity Conservation Data Source (BioSource) website.

Areas of Critical Environmental Concern

Requirements for ACEC Designation

To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) **and** require special management to protect and prevent irreparable damage to relevant and important resource values. Specific evaluation questions for each of these three elements are listed below.

Name of Proposed ACEC:__House Rock Valley Grasslands ACEC_____

Location of Proposed ACEC:_Northern Coconino County, Arizona_____
(Attach Map)

1. Relevance Criteria*:* Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC:_The proposed ACEC meets the relevance criteria based on numerous fish, wildlife, and plant resources including Brady pincushion cactus, Fickeisen plains cactus, mountain lion, pronghorn antelope, House Rock Valley chisel-toothed kangaroo rat, California condor, golden eagles, northern harrier, rough-legged hawks, ferruginous hawks, burrowing owls, and others.

2. Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: ___
The area of the proposed ACEC meets the importance criteria based on these resources: a reintroduced population of endangered California condor; the presence of the endangered

species, Brady pincushion cactus; and the presence of two BLM sensitive species, Fickeisen plains cactus, and the House Rock Valley chisel-toothed kangaroo rat. Other wildlife species present do not meet the criteria as they status does not exceed the level of local significance, nor are they considered fragile, sensitive, rare, irreplaceable, exemplary, unique, or vulnerable to adverse change.

California condor (Gymnogyps californianus): California condors (Gymnogyps californianus) are the largest flying land bird in North America. They weigh up to 25 pounds and have wingspans of 9 1/2 feet (Arizona Game and Fish Department 2004). The species once ranged along the entire Pacific Coast from British Columbia to Baja California. California condors have been considered to be a declining species since the 1890s. In the winter of 1984-85, the wild population was reduced from 15 to 9 birds. By 1986, biologists decided to capture all remaining wild California condors and bring them into a captive breeding program. The California condor was first listed on March 11, 1967. It is currently designated as Endangered in the U.S.A. only, except where listed as an experimental population On October 16, 1996, the California condor was designated as Experimental Population, Non-Essential in the U.S.A. (specific portions of Arizona, Nevada, and Utah). In 1996, the USFWS, the Peregrine Fund, BLM, and other partners reintroduced California condors to the Vermilion Cliffs. The population was designated as experimental non-essential, indicating that this population is not essential to the survival and recovery of the species. This population has been extremely successful. As of 2005, the population had reached nearly 60 wild birds (Arizona Game and Fish Department 2004). Several nesting attempts have been recorded, and one chick successfully fledged. Despite the experimental non-essential designation, this population represents nearly one forth of the total world population of this species.

Brady pincushion cactus (*Pediocactus bradyi*): Brady pincushion cactus is a narrow endemic, occupying distinctive restricted habitats on the Colorado Plateau (FWS 1985). The species grows in gravely alluvium on gently sloping benches and terraces within a geographical area of about 70km2 (17,000 acres) in Coconino County, Arizona (FWS 1985, AGFD 1997a, TNC 1998a). The species is found in scattered populations along both sides of the rim of Marble Canyon and tributary canyons for a distance of about 40 km (25 miles), from below Lee's Ferry to the vicinity of Bedrock Canyon on the west side of Marble Canyon, to Tanner Wash on the east side of Marble Canyon, Coconino County, Arizona. Plants may be found from one to three miles from canyon rims (AGFD 1997a). The potential habitat in the Marble Canyon area is estimated to be 17,000 acres, but within this area, only 10-20 percent of the potential habitat appears to be occupied (FWS 1985, AGFD 1997a). The densest populations occur along the rims of Soap Creek and Rider Canyon, and nearby portions of the rim of Marble Canyon. Total estimated abundance may approach 10,000 plants, distributed in very local, discrete populations (FWS 1985). Hughes (1991) found that all monitored plots were dominated by larger individuals. Pediocactus bradyi was listed as endangered under the Endangered Species Act on October 26, 1979 (44 FR 61784).

Fickeisen plains cactus (*Pediocactus peeblesianus* var. *fickeiseniae*): This species is found in northern Arizona in Coconino and Mohave counties in widely scattered populations along canyon rims of the Little Colorado and Colorado rivers. It is found on flatter ridge-tops and benches with slight to moderate slope in gravely limestone soils at 4,200-5,400 feet (1,281-1,647 m) (AGFD 1997b). *P. peeblesianus* var. *fickeiseniae* is known from 11 element occurrences, including historical occurrences (TNC 1998b). A monitoring plot for *P. peeblesianus* var.

fickeiseniae at South Canyon last completed in 1989 has not shown much recruitment, though the preceding years had poor precipitation. The North Canyon monitoring plot (BLM) has been heavily vandalized (AGFD 1997b). Fickeisen plains cactus is a candidate species for listing under the Endangered Species Act (FWS 1997). Phillips et al. (1982) have recommended *P. peeblesianus* var. *fickeiseniae* for threatened status under the Endangered Species Act.

House Rock Valley chisel-toothed kangaroo rat (Dipodomys microps leucotis). The Houserock Valley chisel-toothed kangaroo rat is known only from the Houserock Valley area, west and north of the Colorado River. Once reported from east of the river at the Navajo Bridge, but not found there in recent surveys (AGFD 1996). The species is apparently restricted to Great Basin Desertscrub communities dominated by shrubs (AGFD 1996). *D. m. leucotis* occurs at the southeastern edge of the range for *microps*, and is isolated geographically from all other *microps*. It is separated from the nearest population of *D. microps* (*D. m. celsus*) by the Kaibab Plateau, which was uplifted 50 million years ago. The distance separating these two subspecies is approximately 40 miles (Spicer and Johnson 1988). These rats prefer areas of sparse grass (O'Farrell 1995), and there is an inverse correlation between abundance of grasses and chisel-toothed kangaroo rats. Chisel-toothed kangaroo rats are known to feed extensively on saltbush leaves and require good shrub cover (O'Farrell 1995; (O'Farrell 1997). Hoffmeister (1986) indicates that where the shrub cover is removed or destroyed, Merriam's kangaroo rat replaces the chisel-toothed species. The species is considered a BLM sensitive species in Arizona.

3. Need for Special Management: Does the value, resource, system, process, or hazard require special management to protect (or appropriately manage) the important/relevant value(s)? Special management is defined as or is needed when:

- Current management activities are not sufficient to protect a given relevant/important resource value and a change in management is needed that is not consistent with the existing land use plan(s).

- The needed management action is considered unusual or outside the normal range of management practices typically used.

- The change in management is difficult to implement without ACEC designation.

Describe the special management required for the value(s) listed above:_____

California condor: California condor are protected under the Endangered Species Act. Conservation measures for the species are outlined in the Recovery Plan for California Condors, as well as the draft Arizona Strip Resource Management Plan (RMP). The Peregrine Fund and the Arizona Game and Fish Department (AGFD) have active management programs in place for the protection of California condors. The Proclamation designating the Vermilion Cliffs National Monument also provides supplemental protection for the species. Threats to the species include illegal collection of condors and their eggs, poisoning from ingestion of lead fragments from bullets embedded in animal carcasses the condors feed on, and collisions with structures such as power lines (AGFD 2004). Given that the Peregrine Fund and AGFD personnel are on-site monitoring these birds, the vast majority of threats from collection are being addressed under current management. In addition, Arizona Game and Fish Department are actively involved in public education efforts to promote the use of non-lead ammunition to reduce the risk of lead

ingestion. Both the current (BLM 1992) and draft Arizona Strip RMPs allow the BLM the authority identify and reduce or eliminate threats to any wildlife species regardless of listing status. This includes the authority to modify design standards on new proposed powerlines and recommend modifications to existing lines.

Brady pincushion cactus: Brady pincushion cactus are protected under the Endangered Species Act. Conservation measures for the species are outlined in the Brady Pincushion Cactus Recovery Plan, as well as the draft Arizona Strip Resource Management Plan (RMP). This species is threatened by overcollection for the horticultural trade (TNC 1998a). In addition to collection pressures, highway maintenance and road alignment has affected at least one population and livestock grazing has had local impacts due to trampling. Additional threats include off-road vehicles and impacts from dispersed recreation. Threats from mining activities appear minimal at this time (AGFD 1997a). Natural factors, such as restriction of species to a localized soil type, restricted gene pool, etc., in conjunction with the human activities make the species more vulnerable to these impacts and threats (FWS 1985). For this reason, the Marble Canyon ACEC was designated in the 1992 RMP. The draft RMP would continue this designation with some boundary modifications to increase protection. Low barricades would be installed along roadways at canyon overlooks to reduce or eliminate opportunites minimize the effects of recreational vehicles

Fickeisen plains cactus: Threats to *P. peeblesianus* var. *fickeiseniae* include collection, trampling by livestock and buffalo (especially in wet soils), insect and rodent predation, road construction, and uranium exploration (AGFD 1997b, TNC 1998b). Actions related to changes or limitations on livestock grazing activities, road construction, and mining are managed under the existing RMP (BLM 1992) and the draft RMP. Threats from mining activities appear minimal at this time (AGFD 1997b).

House Rock Valley chisel-toothed kangaroo rat: Threats include loss of forage and cover species, such as four-wing saltbush and black brush, due to excessive livestock grazing. In addition, in developed areas near Glen Canyon Recreation Area, feral and free-ranging cats (*Felis catus*) may also be a local problem(AGFD 1996). The addition of new water developments within their habitat may further concentrate livestock and reduce desirable shrubs used for forage and cover. Changes or limitations on livestock grazing activities and construction and maintenance of water developments are all actions managed under the existing RMP (BLM 1992) and the draft RMP.

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4. Attach map (even if it is only a topographic map with ACEC boundaries drawn on it.)

See attached map and proposal submitted by Arizona Wilderness Coalition.

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5. Findings (for each described resource, indicate whether relevance and importance criteria were met, and what special management would be required to protect and prevent irreparable damage to these resources.).

A variety of resources met the relevance criteria. However, only four resources met the importance criteria based on the definitions provided. California condor, Brady pincushion

cactus, Fickeisen plains cactus, and House Rock Valley chisel-toothed kangaroo rat are special status species and, by definition, are rare, fragile, and sensitive resources of more than local significance. Each is considered vulnerable to adverse change.

Resource	Relevance Criteria Met	Importance Criteria Met	Special Management Required
California condor	**Yes**	**Yes**	**None required, current management adequate**
Brady pincushion cactus	**Yes**	**Yes**	**Enhanced restrictions on OHV use in specific areas.**
Fickeisen plains cactus	**Yes**	**Yes**	**Enhanced restrictions on OHV use in specific areas.**
House Rock Valley chisel-toothed kangaroo rat	**Yes**	**Yes**	**None required, current management adequate**

Current management, as provided for by recovery plans, conservation agreements, RMPs, and agency policies generally provide a more than adequate framework for managing these sensitive resources. However, additional restrictions on off-road vehicle use would enhance conditions for both plant species. Vehicle use is currently limited to existing roads and trails. Any motorized or mechanized vehicle use off of existing routes is not authorized. Route identification and designation is anticipated within two years following completion of the final RMP for the Arizona Strip Field Office. No specific routes within the proposed ACEC have been identified as impacting sensitive resources or contributing to their decline.

For these reasons, no special management would be required for California condor or House Rock Valley chisel-toothed kangaroo rats, other than that which is currently allowable under the existing RMP. Additional OHV actions could benefit special status plants, though no specific problems have been identified through the habitat of these species.

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6. Recommendations (Based on meeting the relevance and importance criteria and the need for special management, provide recommendations about designation of the proposed ACEC and areas that should be included.)

Based on the findings presented above, California condor and House Rock Valley chisel-toothed kangaroo rats met the relevance and importance criteria, but no special management would be required above what is currently within the BLM's authority. Brady pincushion and Fickeisen plains cactus met both the relevance and importance criteria and would benefit from site-specific OHV restrictions that would be enhanced if done in conjunction with ACEC designation. Specific problem areas have been and continue to be addressed within Brady pincushion cactus habitat. No specific areas have yet been identified within Fickeisen plains cactus habitat in the area of the proposed ACEC. Therefore, recommendations are as follows:

1) Carry forward the proposed House Rock Valley ACEC as proposed by the Arizona Wilderness Coalition. As such, the area would include all of the existing Marble Canyon ACEC.

References:

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Areas of Critical Environmental Concern

Requirements for ACEC Designation

To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) **and** require special management to protect and prevent irreparable damage to relevant and important resource values. Specific evaluation questions for each of these three elements are listed below.

Name of Proposed ACEC: Kanab Plateau Wildlife ACEC

Location of Proposed ACEC: NE Mohave County, Arizona
(Attach Map)

1. Relevance Criteria: Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The proposed ACEC meets the relevance criteria based on numerous fish, wildlife, and plant resources including mountain lion, pronghorn antelope, golden eagles, northern harrier, rough-legged hawks, ferruginous hawks, burrowing owls, and others.

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2. Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: ___

The area of the proposed ACEC does not meet the importance criteria because the fish, wildlife, and plant species present do not exceed the level of local significance, nor are they considered fragile, sensitive, rare, irreplaceable, exemplary, unique, or vulnerable to adverse change. While ferruginous hawks and burrowing owls are included on the BLM sensitive species list, both species are considered locally common on the Arizona Strip. Neither species is experiencing declining populations within the Planning Area.

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3. Need for Special Management: Does the value, resource, system, process, or hazard require special management to protect (or appropriately manage) the important/relevant value(s)? Special management is defined as or is needed when:

- Current management activities are not sufficient to protect a given relevant/important resource value and a change in management is needed that is not consistent with the existing land use plan(s).

- The needed management action is considered unusual or outside the normal range of management practices typically used.

- The change in management is difficult to implement without ACEC designation.

Describe the special management required for the value(s) listed above:_____

No special management needs exist for any species or resource value that can not be provided for through existing management under the 1992 RMP. While ferruginous hawks and burrowing owls are included on the BLM sensitive species list, existing management is considered adequate to protect these species.

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4. Attach map (even if it is only a topographic map with ACEC boundaries drawn on it.)

See attached map and proposal submitted by Arizona Wilderness Coalition.

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5. Findings (for each described resource, indicate whether relevance and importance criteria were met, and what special management would be required to protect and prevent irreparable damage to these resources.).

A variety of resources met the relevance criteria. However, none met the importance criteria based on the definitions provided.

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6. Recommendations (Based on meeting the relevance and importance criteria and the need for special management, provide recommendations about designation of the proposed ACEC and areas that should be included.)

Based on the findings presented above, ACEC designation is not warranted for the Kanab Plateau proposal submitted by the Arizona Wilderness Coalition, based on failure to meet importance criteria and need for special management. Therefore, recommendations are as follows:

1) Do not carry forward the proposal for the Kanab Plateau ACEC as an alternative in the draft RMP.

References:

Bureau of Land Management. 1992. Arizona Strip District Resource Management Plan. U.S. Department of the Interior, Arizona Strip District Office, St. George, UT. 685pp.

Areas of Critical Environmental Concern

Requirements for ACEC Designation

To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) **and** require special management to protect and prevent irreparable damage to relevant and important resource values. Specific evaluation questions for each of these three elements are listed below.

Name of Proposed ACEC:__Wolf Hole ACEC_____

Location of Proposed ACEC:_NE Mohave County, Arizona_____
(Attach Map)

1. Relevance Criteria*:* Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC:_The proposed ACEC meets the relevance criteria based on numerous fish, wildlife, and plant resources including mountain lion, pronghorn antelope, golden eagles, northern harrier, rough-legged hawks, ferruginous hawks, burrowing owls, and others.

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2. Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: ___

The area of the proposed ACEC does not meet the importance criteria because the fish, wildlife, and plant species present do not exceed the level of local significance, nor are they considered fragile, sensitive, rare, irreplaceable, exemplary, unique, or vulnerable to adverse change. While ferruginous hawks and burrowing owls are included on the BLM sensitive species list, both species are considered locally common on the Arizona Strip. Neither species is experiencing declining populations within the Planning Area.

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3. Need for Special Management: Does the value, resource, system, process, or hazard require special management to protect (or appropriately manage) the important/relevant value(s)? Special management is defined as or is needed when:

- Current management activities are not sufficient to protect a given relevant/important resource value and a change in management is needed that is not consistent with the existing land use plan(s).

- The needed management action is considered unusual or outside the normal range of management practices typically used.

- The change in management is difficult to implement without ACEC designation.

Describe the special management required for the value(s) listed above:_____

No special management needs exist for any species or resource value that can not be provided for through existing management under the 1992 RMP. While ferruginous hawks and burrowing owls are included on the BLM sensitive species list, existing management is considered adequate to protect these species.

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4. Attach map (even if it is only a topographic map with ACEC boundaries drawn on it.)

See attached map and proposal submitted by Arizona Wilderness Coalition.

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5. Findings (for each described resource, indicate whether relevance and importance criteria were met, and what special management would be required to protect and prevent irreparable damage to these resources.).

A variety of resources met the relevance criteria. However, none met the importance criteria based on the definitions provided.

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6. Recommendations (Based on meeting the relevance and importance criteria and the need for special management, provide recommendations about designation of the proposed ACEC and areas that should be included.)

Based on the findings presented above, ACEC designation is not warranted for the Wolf Hole Wildlife proposal submitted by the Arizona Wilderness Coalition, based on failure to meet importance criteria and need for special management. Therefore, recommendations are as follows:

1) Do not carry forward the proposal for the Wolf Hole Wildlife ACEC as an alternative in the draft RMP.

References:

Bureau of Land Management. 1992. Arizona Strip District Resource Management Plan. U.S. Department of the Interior, Arizona Strip District Office, St. George, UT. 685pp.

Areas of Critical Environmental Concern

Requirements for ACEC Designation

To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) **and** require special management to protect and prevent irreparable damage to relevant and important resource values. Specific evaluation questions for each of these three elements are listed below.

Name of Proposed ACEC:__Seemiller Mountain Wildlife ACEC_____

Location of Proposed ACEC:_NE Mohave County, Arizona_____
(Attach Map)

1. Relevance Criteria*:* Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC:_The proposed ACEC meets the relevance criteria based on numerous fish, wildlife, and plant resources including mountain lion, pronghorn antelope, golden eagles, northern harrier, rough-legged hawks, ferruginous hawks, burrowing owls, and others.

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2. Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: ___

The area of the proposed ACEC does not meet the importance criteria because the fish, wildlife, and plant species present do not exceed the level of local significance, nor are they considered fragile, sensitive, rare, irreplaceable, exemplary, unique, or vulnerable to adverse change. While ferruginous hawks and burrowing owls are included on the BLM sensitive species list, both species are considered locally common on the Arizona Strip. Neither species is experiencing declining populations within the Planning Area.

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3. Need for Special Management: Does the value, resource, system, process, or hazard require special management to protect (or appropriately manage) the important/relevant value(s)? Special management is defined as or is needed when:

- Current management activities are not sufficient to protect a given relevant/important resource value and a change in management is needed that is not consistent with the existing land use plan(s).
- The needed management action is considered unusual or outside the normal range of management practices typically used.
- The change in management is difficult to implement without ACEC designation.

Describe the special management required for the value(s) listed above:_____

No special management needs exist for any species or resource value that can not be provided for through existing management under the 1992 RMP. While ferruginous hawks and burrowing owls are included on the BLM sensitive species list, existing management is considered adequate to protect these species.

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4. Attach map (even if it is only a topographic map with ACEC boundaries drawn on it.)

See attached map and proposal submitted by Arizona Wilderness Coalition.

---

5. Findings (for each described resource, indicate whether relevance and importance criteria were met, and what special management would be required to protect and prevent irreparable damage to these resources.).

A variety of resources met the relevance criteria. However, none met the importance criteria based on the definitions provided.

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6. Recommendations (Based on meeting the relevance and importance criteria and the need for special management, provide recommendations about designation of the proposed ACEC and areas that should be included.)

Based on the findings presented above, ACEC designation is not warranted for the Seemiller Mountain Wildlife proposal submitted by the Arizona Wilderness Coalition, based on failure to meet importance criteria and need for special management. Therefore, recommendations are as follows:

1) Do not carry forward the proposal for the Seemiller Mountain Wildlife ACEC as an alternative in the draft RMP.

References:

Bureau of Land Management. 1992. Arizona Strip District Resource Management Plan. U.S. Department of the Interior, Arizona Strip District Office, St. George, UT. 685pp.